NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FACT SHEET

Permittee's Name:	The Chukchansi Gold Resort and Casino Wastewater Treatment Plant
Mailing Address:	711 Lucky Lane Coarsegold, California 93614
Plant Location:	711 Lucky Lane Coarsegold, California 93614
Contact Person(s):	Samuel Elizondo, Environmental Director
NPDES Permit No.:	CA0004009

I. Status of Permit

This is a new permit application to allow surface water discharge for an existing facility that currently land applies and/or recycles all wastewater on-site. The Picayune Rancheria of the Chukchansi Indians, the owners of the Chukchansi Gold Resort and Casino wastewater treatment plant, have applied for a National Pollutant Discharge Elimination System (NPDES) permit allowing the discharge of treated effluent from their wastewater treatment plant, in Madera County, California, to an unnamed creek on Tribal land which eventually flows into Coarsegold Creek, an eventual tributary to the Fresno River and San Joaquin River, which are considered to be waters of the United States.

II. General Facility Information

The Chukchansi Gold Resort and Casino wastewater treatment plant (hereinafter the "Chuckchasi WWTP") is a tribally-owned wastewater treatment plant located in Madera, California. The current Chukchansi WWTP serves a total population of approximately 15,000 residents and visitors and treats wastewater from the various facilities in the Chuckchansi Gold Resort and Casino complex..

Currently, the plant is designed to treat 170,000 gallons per day (gpd) of wastewater from these facilities, and actually treats an average of 104,000 gpd. Treatment is via an activated sludge process known as a sequencing batch reactor (SBR) which treats to a secondary level and is followed by a tertiary process capable of producing recycled water that meets the quality requirements promulgated in the California Code of Regulations (CCR) Title 22. The treatment process includes head works (sequencing, screening, comminution), sedimentation, chemical coagulation, filtration, disinfection using chlorine. Tertiary effluent is stored in three storage tanks with a total volume of 1.5 million gallons, and then pumped from the storage tanks to the recycled water distribution system. The distribution system sends recycled water either to the casino for

toilet flushing and landscape irrigation or disposal via subsurface leachfields or sprayfield irrigation. No water is currently discharged into a receiving water which is a waters of the U.S.

The owner proposes to convert the existing treatment process to an Immersed Membrane Bioreactor (MBR) treatment plant. The MBR incorporates the use of a membrane barrier for solids separation rather than gravity settling used in the current SBR process. The MBR treatment will produce a much higher quality effluent on a consistent basis as compared to the SBR process. The maximum design capacity of the MBR Facility will be 350,000 gpd, with a designed average flow of 235,000 gpd. Wastewater generated by the WWTP will continue to be recycled and re-used on site for toilet flushing and on-site irrigation as much as practical. Only the volume of wastewater that cannot be recycled or re-used will be discharged. Such additional flow, if any, will be disposed via a discharge point in a creek or drainage course on Tribal land, which passes to the south of the WWTP, ultimately feeding into Coarsegold creek. Coarsegold Creek is a tributary to the Fresno River and the San Joaquin River. An ultra violet (UV) disinfection system will be installed and operational prior to issuance of this permit to ensure disinfection of any discharge to the creek. However, as a back-up, a system will also exist for the effluent to be treated via contact chlorination and then dechlorination (to limit residual chlorine levels) before discharge into the receiving water.

III. Receiving Water

The receiving water for Outfall No. 001 for the permitted facility is an unnamed creek or drainage course feeding into Coarsegold Creek, tributary to the Fresno River and the San Joaquin River, both waters of the United States. The Outfall is located at latitude 37º, 12', 49" N, longitude 119º, 41', 42" W in Madera County, California. Though the effluent will not exit Tribal land for approximately 1 mile downstream from the discharge point, the limits established in this permit shall apply at the point of discharge. The applicable water quality standards are specified in the Water Quality Control Plan for the State of California, Region 5, Water Quality Control Board. According to Section II. of this basin plan, “the beneficial uses of any specifically identified water body generally apply to its tributary streams.” The applicable water quality standards which have been applied to this water are those that apply to the Fresno river from Source to Hidden Reservior. The beneficial uses designated for this surface water body are listed in Table II-1 of the basin plan as MUN, AGR, REC-1, FW HABITAT-WARM/COLD, MGR-WARM, and WILD. Applicable narrative water quality standards and numeric water quality standards are described in Section III of the Water Quality Control Plan.

IV. Description of Discharge

The discharge will be tertiary treated municipal wastewater treated using an Immersed Membrane Bioreactor (MBR) treatment plant. The MBR incorporates the use of a

membrane barrier for solids separation rather than gravity settling used in the current SBR process. The MBR treatment will produce a much higher quality effluent on a consistent basis as compared to the SBR process. The effluent prior to discharge will be disinfected using UV disinfection treatment. The discharge will meet "California Title 22", "tertiary 2.2" standards.

A. Permit Application Summary

The Permit sought by the Picayune Rancheria of the Chukchansi Indians is for an on-site wastewater treatment plant that will discharge treated effluent to an unnamed creek or drainage course feeding into Coarsegold Creek, a tributary to the Fresno River and the San Joaquin River. The proposed design flow is 350,000 gallons per day, with a designed average flow of 235,000 gallons per day. Currently the facility produces, treats, recycles and re-uses on average 104,000 gallons per day. It is anticipated that after the construction of the new treatment plant the facility will continue to recycle and re-use as much water as practical and only discharge that volume that cannot be recycled and re-used. Since this is an application for a new permit not much discharge data, or ambient data is available. However, as required in Section IV of Form 2E the discharger provides estimates for the listed parameters below:

Pollutant or Parameter	Mass (max daily value)	Conc. (max daily value)	Mass (avge daily value)	Conc. (avge daily value)	Number of Measure-ments	Source of Estimate
BOD	N/A	N/A	N/A	N/A	N/A	N/A
TSS	N/A	N/A	N/A	N/A	N/A	N/A
Fecal Coliform	N/A	2.2 MPN	N/A	< 2.2 MPN	N/A	N/A
Total Residual Chlorine	N/A	N/A	N/A	N/A	N/A	N/A
Oil and Grease	N/A	N/A	N/A	N/A	N/A	N/A
COD	N/A	N/A	N/A	N/A	N/A	N/A
TOC	N/A	N/A	N/A	N/A	N/A	N/A

Ammonia (as N)	N/A	N/A	N/A	N/A	N/A	N/A
Discharge Flow		0.350 MGD		0.105 MGD	N/A	N/A
pH		N/A		N/A	N/A	N/A
Temp. (Summer)		Unknown		Unknown	N/A	N/A
Temp. (Winter)		Unknown		Unknown	N/A	N/A

B. Discharge Monitoring Report (DMR) Data

As this is a new facility, yet to be constructed, no DMRs available.

V. Effluent Limitations for Conventional Pollutants

Section 301(a) of the Act provides that the discharge of any pollutant to waters of the United States is unlawful except in accordance with an NPDES permit. Section 402 of the Act establishes the NPDES program. The program is designed to limit the discharge of pollutants into waters of the U.S. from point sources (40 CFR 122.1 (b)(1)) through a combination of various requirements including technology-based and water quality-based effluent limitations.

Settleable Solids
The minimum levels of effluent quality attainable by secondary treatment for Settleable Solids, as specified in the EPA Region IX Policy memo dated May 14, 1979, are listed below:

30-day average - 1ml/L
Daily maximum - 2ml/L

Unless otherwise noted, the following permit limitations must be met when discharging

BOD and Suspended Solids
30-day average - 10 mg/l

7-day average - 15 mg/l
30-day average percent removal: minimum 85%
Mass Limits -
30-day average: (10 mg/l)*(350,000 gal/day)*(1 kg/l x 10^6 mg)*(3.785 l/gal)
=13.249 kg/day
7-day average: (15 mg/l)*(350,000 gal/day)*(1 kg/l x 10^6 mg)*(3.785 l/gal)
= 19.869 kg/day

Daily maximum (based on Best Professional Judgement)-
2 X (30-day average) = 26.498 kg/day

EPA is interpreting the requirement to discharge advanced treated wastewater to require water quality discharge restrictions for TSS and BOD- more stringent than technology-based secondary treatment standards. Therefore, EPA has incorporated water quality based standards for BOD more stringent than technology-based standards that are consistent with the discharge requirements for other municipal wastewater discharges in the area. The permit therefore establishes an average monthly limit of 10 mg/L, an average weekly maximum of 15 mg/L, and a daily maximum limit of 20 mg/L. These limits are more stringent than technology-based standards and have been incorporated into the permit.

Total Coliform

Based on California Code of Regulations Title 22 standard for re-use of treated effluent:

30-day geometric mean: 2.2 MPN/100 ml
Single-sample maximum: 2.2 MPN/100 ml

Based on the nature of WWTP effluent, there is a reasonable potential for coliform bacteria to violate water quality standards. Based on REC-1 Beneficial Use, total coliform concentration based on a minimum of not less than five samples for any 30 day period shall not exceed 200/100 ml, nor shall more than 10% of the total number of samples during any 30-day period exceed 400/100 ml 10% of samples for 30-day period. Based on MUN standards, total coliform must not exceed 2.2 /100mL in a 7 day average. Since the MUN is the most stringent standard, this limit is included in the permit.

The effluent is designed to meet California (Title 22) disinfection standards for the re-use of wastewater. Title 22 requires that for spray irrigation of food crops, parks, playgrounds, schoolyards, and other areas of public access, wastewater be adequately disinfected, oxidized, coagulated, clarified, and filtered and that the effluent total coliform levels not exceed 2.2 MPN/100 ml as a 7-day median.

pH

California Regional Board 5, Basin Plan Section III

Minimum: 6.5
Maximum: 8.5
Maximum change due to discharge: 0.5

VI. Proposed Water-Quality-Based Effluent Limitations for Other Constituents

As described in 40 CFR 122.44(d), and NPDES permit must contain "any requirements in addition to or more stringent than promulgated effluent limitation guidelines or standards necessary to achieve water quality standards...including State narrative criteria for water quality." As described in 40 CFR 122.44(d)(i), NPDES permits are required to limit any "pollutant or pollutant parameter (whether conventional, nonconventional, or toxic), including whole effluent toxicity, that is or that may be discharged at a level that causes, has the reasonable potential to cause, or contributes to an excursion above any water quality criterion, including State narrative water quality criteria."

A. Narrative water quality standards: As stated in Water Quality Control Plan for the State of California, Region 3, Water Quality Control Board, the following narrative water quality standards apply:

1. Waters shall not contain biostimulatory substances which promote aquatic growths in concentrations that cause nuisance or adversely affect beneficial uses;

2. Waters shall not contain chemical constituents in concentrations that adversely affect beneficial uses;

3. Water shall be free of discoloration that causes nuisance or adversely affects beneficial uses;

4. Water shall not contain floating material in amounts that cause nuisance or adversely affect beneficial uses;

5. Waters shall not contain oils, greases, waxes, or other materials in concentrations that cause nuisance, result in visible film or coating on the surface of the water or on objects in the water, or otherwise adversely affect beneficial uses;

6. No individual pesticide or combination of pesticides shall be present in concentrations that adversely affect beneficial uses;

7. Radionuclides shall not be present in concentrations that are harmful to human, plant, animal, or aquatic life nor result in the accumulation of

radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life;

8. The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses;

9. Waters shall not contain substances in concentrations that result in the deposition of material that causes nuisance or adversely affect beneficial uses;

10. Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses;

11. The natural receiving water temperature of intrastate waters shall not be altered unless it can be demonstrated to the satisfaction of EPA that such alteration of temperature does not adversely affect beneficial uses;

12. All waters shall be maintained free of toxic substances in concentrations that produce detrimental physiological responses in human, plant, animal or aquatic life. This objective applies whether the toxicity is caused by a single substance or the interactive effect of multiple substances. Compliance with this objective will be determined by analyses of indicator organisms, species diversity, population density, growth anomalies, and biotoxicity tests of appropriate duration or other methods as specified by EPA;

13. Waters shall not contain taste or odor producing substances in concentrations that impart undesirable tastes or odors to domestic or municipal water supplies or to fish or other edible products of aquatic origin, or that cause nuisance, or otherwise adversely affect beneficial uses;

14. Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses;

B. Numeric Water Quality Standards: Numeric water quality standards are used to calculate limits for parameters above detection and for those expected to be present in the effluent.

The process of "reasonable potential" analysis was used to compare effluent discharges to water quality standards, as required by 40 CFR 122.44(d)(1)(ii), (iii) and (iv) which

states:

> When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria for a State water quality standard, the permitting authority shall use procedures which account for existing controls on point and nonpoint sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing, and where appropriate, the dilution of the effluent in the receiving water. The procedures used to determine reasonable potential are outlined in *Technical Support Document for Water Quality-based Toxics Control (TSD)* (EPA/502/2-90-001).

When the permitting authority determines that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the allowable ambient concentration of a numeric criterion for a State water quality standard for an individual pollutant, the permit must contain effluent limits for that pollutant.

When the permitting authority determines that a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above the numeric criterion for whole effluent toxicity, the permit must contain effluent limits for whole effluent toxicity.

Ammonia

Treated and untreated domestic wastewater may contain levels of ammonia that are toxic to aquatic organisms. Ammonia is converted to nitrate during biological nitrification process, and then nitrate is converted to nitrogen gas through biological denitrification process. USEPA's Ambient Water Quality Criteria for the Protection of Freshwater Aquatic Life recommends acute and chronic criteria that are pH and temperature dependent. Due to the potential for ammonia to be present in sanitary wastewater and due to the conversion of ammonia to nitrate, effluent limitations are established for ammonia.

Nitrate

Treated and untreated domestic wastewater may contain levels of ammonia that are toxic to aquatic organisms. Ammonia is converted to nitrate during biological nitrification process, and then nitrate is converted to nitrogen gas through biological denitrification process.

The primary MCL for protection of MUN is 10 mg/L and the USEPA Ambient Water Quality Criteria for the Protection of Human Health is also 10 mg/L for non-cancer effects. Due to the potential for ammonia to be present in sanitary wastewater and due to the conversion of ammonia to nitrate, effluent limitations are established for nitrate

(measured as N).

Total Dissolved Solids/Electrical Conductivity

To protect the beneficial uses of water for agriculture uses, studies by the United Nations have recommended a goal of 700 umhos/cm for electrical conductivity (EC). The California Department of Health Services has recommended an SMCL for EC of 900 umhos/cm, with an upper level of 1600 umhos/cm and a short term level of 2200 umhos/cm.

Due to lack of discharge data, it is unknown at this time if the discharge from the new WWTP will have the reasonable potential to cause or contribute to an exceedance of water quality standards. Therefore, the draft permit establishes monthly monitoring requirements for EC and TDS to assess reasonable potential.

Total Residual Chlorine:

Chlorine will NOT be used to disinfect WWTP effluent intended for discharge, which is disinfected through the use of filtration and UV disinfection. Chlorine will also be added to recycled effluent immediately prior to storage in the recycle water storage tanks. This water is not anticipated to be discharged, but may, in certain circumstances, be discharged after dechlorination.

Although chlorine is not expected to be present in the discharge, EPA believes there is a reasonable potential for chlorine residual to be present due to the use of chlorine at the WWTP and its use for reclaimed water applications. Therefore, effluent limits for residual chlorine have been included in the permit to verify compliance.

Oil and Grease

Treated and untreated domestic wastewater may contain levels of oil and grease which may be toxic to aquatic organisms. There are no numeric water quality standards for oil and grease (only narrative standards which have been incorporated into the permit). Monitoring of oil and grease levels in the effluent has been incorporated to ensure that the narrative standards are not exceeded.

Toxicity

The basin plan includes a narrative objective for toxicity that requires that: All waters shall be maintained free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life. Both Acute and Chronic WET testing is required, and will be conducted as described in the permit section Part I. Section C. to assess the reasonable potential of the discharge to have toxic effects on aquatic organisms.

Screening of Priority Toxic Pollutants

The discharger must conduct a comprehensive screening test for the Priority Toxic Pollutants listed for the California Toxics Rule in the Code of Federal Regulations (CFR) at 40 CFR Section 131.38, prior to the issuance of the permit. If an exceedence of the limits, or a reasonable potential for exceedence of such limits is detected, further testing of that or those particular compound(s) must be undertaken within 30 days of the initial testing to determine the cause of exceedence or potential exceedence and this permit may be re-opened to require appropriate limits.

Table 1 of the permit summarizes proposed effluent limitations and monitoring requirements for Outfall No. 001. When properly operated, this wastewater treatment system should meet the limitations in Table 1. of the permit.

VII. Monitoring Requirements

A. Flow Quantity, Organics, and Inorganics

The permit requires daily flow monitoring and weekly and monthly monitoring for the technology-based parameters noted in VII.B. Table 1 also indicates requirements for the type of sample to be collected, i.e., discrete or composite.

B. Technology-Based Limitations and Indicator Parameters

Technology-based and indicator parameters will be monitored to ensure proper operational control of the facility. pH will be monitored daily, BOD and suspended solids, total coliform and other parameters will be monitored weekly.

Some operationally related parameters will also be monitored to ensure compliance with water quality standards. Monitoring for TRC is proposed at weekly intervals to verify adequate removal of chlorine prior to discharge to the receiving water, when chlorine treatment of the effluent is used.

VIII. Threatened and Endangered Species

A. Background:

The Endangered Species Act (ESA) allocates authority to and administers requirements upon Federal agencies regarding threatened or endangered species of fish, wildlife, or plants and habitat of such species that have been designated as critical. Its implementing regulations [50 CFR Part 402] require Federal agencies such as the U.S. Environmental Protection Agency (EPA) to ensure, in consultation with the U.S. Fish and Wildlife Service (USFWS), that any action authorized, funded or carried out by EPA is not likely to jeopardize the continued

existence of any Federally-listed threatened or endangered species or adversely affect critical habitat of such species. [40 CFR 122.49(c)]. Since the issuance of NPDES permits by EPA is a Federal action, consideration of a permitted discharge and its effect on any listed species is appropriate.

Implementing regulations for the ESA establish a process by which Federal agencies consult with one another to ensure that the concerns of both the USWFS and the National Marine Fisheries Service (NMFS) (collectively "Services") are addressed. EPA is currently requesting information on threatened or endangered species from the Services regarding the proposed action.

B. EPA's Finding:

The proposed NPDES permit authorizes the discharge of treated wastewater in conformance with federal tertiary treatment regulations and contains provisions for monitoring conventional, toxic chemicals, and non-conventional pollutants in compliance with the Federal and California State Water quality standards, to ensure an appropriate level of quality of water discharged by the facility. These standards are applied in the permit as both numeric and narrative limits. Therefore, since the standards themselves are designed to protect aquatic species, including threatened and endangered species, any discharge in compliance with these standards should not adversely impact any threatened and endangered species.

While EPA believes that discharge in compliance with this permit will have no effect on threatened or endangered species and is proposing to issue the permit at this time. EPA may decide that changes to the permit may be warranted based on receipt of new information and EPA will initiate consultation should new information reveal impacts not previously considered, or should the activities affect a newly-listed species. Re-opener clauses have been included in the permit should new information become available to indicate that the requirements of the permit need to be changed.

IX. Administrative Information

A. Public Notice (40 CFR Part 124.10)

The public notice is the vehicle for informing all interested parties and members of the general public of the contents of a draft NPDES permit or other significant action with respect to a NPDES permit or application. The basic intent of this requirement is to ensure that all interested parties have an opportunity to comment on significant actions of the permitting agency with respect to a permit application or permit.

This permit will be public noticed in a local newspaper.

B. Public Comment Period (40 CFR Part 124.10)

Regulations require that NPDES permits be noticed in a daily or weekly newspaper within the area affected by the facility or activity and provide a minimum of 30 days for interested parties to respond in writing to EPA. EPA noticed the permit in a daily newspaper within the area (The Fresno Bee) for a period of 30 days commencing on or about December 22, 2007. However due to the perceived lack of sufficient notice, EPA has decided to re-open the comment period for an additional period of 45 days after publication of the notice of re-opening.

In the interest of full public participation, EPA will accept and consider all written comments received from December 22, 2007 to the end of the additional 45 day comment period. EPA will also consider all oral and written comments received at the Public Hearing in Part C. below.

After the closing of the public comment period, EPA is required to respond to all significant comments at the time a final permit decision is reached or at the same time a final permit is actually issued.

C. Public Hearing (40 CFR Part 124.12 (c))

A public hearing has been requested by interested parties and is scheduled to occur on or about April 26, 2007. This public hearing will be used to seek input from interested parties and collect additional information about the issues involved in the permit decision.

X. Additional Information

Additional information relating to this proposed permit may be obtained from either of the following location(s):

U.S. Environmental Protection Agency, Region IX
CWA Standards & Permits Office Mail Code: WTR-5
75 Hawthorne Street
San Francisco, California 94105
Telephone: (415)972-3516
Gary Sheth

XI. Information Sources

While developing effluent limitations, monitoring requirements and special conditions for the draft permit, the following information sources were used:

1. NPDES Permit Application Forms and supplementary information submitted by Permittee dated 01/20/06

2. 40 CFR Part 131.38 Establishment of Numeric Criteria for Priority Toxic Pollutants for the State of California. 40 CFR Parts 122, 124, and 133.

3. EPA Technical Support Document for Water Quality-Based Toxics Control dated March, 1991.

4. EPA NPDES Permit Writers Manual. EPA-833-B-96-003. December 1996.

5. Water Quality Control Plan for the State of California, Region 5, Central Valley Region Sacramento and San Joaquin River Basins, December 1994.

6. 2004 Guidelines For Water Reuse. EPA-625-R-04-108. August 2004

7. Interim Final Regions 9 and 10 Guidance for Implementing Whole Effluent Toxicity Testing Programs, May 31, 1996.

8. Public comments received to date in response public notice dated December 22, 2007.